NE920775 - NEROL FORCE RACING BRAKE COMPETITION RX300

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier: NE920775 - NEROL FORCE RACING BRAKE COMPETITION RX300

Other means of identification:

Non-applicable

1.2 Relevant identified uses of the substance or mixture and uses advised against:

Relevant uses: Brake fluid

Uses advised against: All uses not specified in this section or in section 7.3

1.3 Details of the supplier of the safety data sheet:

Nerol Lubricants, S.L.
Ctra. de Mazarrón Km. 3 - Cartagena
30393 Murcia - Murcia - España
Phone: +34911271060
info@lubricantsnerol.com
www.lubricantsnerol.com

1.4 Emergency telephone number: EUROPE : +44 (0) 1235 239 670

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture:

GB CLP Regulation:

Classification of this product has been carried out in accordance with GB CLP Regulation.

Acute Tox. 4: Acute toxicity if swallowed, Category 4, H302
Eye Irrit. 2: Eye irritation, Category 2, H319

2.2 Label elements:

GB CLP Regulation:

Warning

Hazard statements:

Acute Tox. 4: H302 - Harmful if swallowed.
Eye Irrit. 2: H319 - Causes serious eye irritation.

Precautionary statements:

P101: If medical advice is needed, have product container or label at hand.
P102: Keep out of reach of children.
P264: Wash thoroughly after use.
P280: Wear protective gloves/protective clothing/eye protection/protective footwear.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P330: Rinse mouth.
P337+P313: If eye irritation persists: Get medical advice/attention.
P501: Dispose of the contents and/or its container using the separate collection system in your municipality.

Substances that contribute to the classification

2,2´-oxybisethanol; 1,1´-iminodipropan-2-ol

2.3 Other hazards:

Product does not meet PBT/vPvB criteria

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance:

Non-applicable

3.2 Mixture:

Chemical description: Mixture of substances

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

Components:

In accordance with Annex II of The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020, the product contains:

Identification	Chemical name/Classification	Concentration
CAS: 9004-77-7	**Poly(ethylene glycol) butyl ether** Eye Irrit. 2: H319 - Warning	**25 - <50 %**
CAS: 143-22-6	**2-[2-(2-butoxyethoxy)ethoxy]ethanol** Eye Dam. 1: H318 - Danger	**25 - <50 %**
CAS: 111-46-6	**2,2´ -oxybisethanol** Acute Tox. 4: H302 - Warning	**10 - <25 %**
CAS: 107-21-1	**Ethanediol** Acute Tox. 4: H302 - Warning	**10 - <25 %**
CAS: 111-77-3	**2-(2-methoxyethoxy)ethanol** Repr. 1B: H360D - Danger	**1 - <2,5 %**
CAS: 110-97-4	**1,1´-iminodipropan-2-ol** Eye Irrit. 2: H319 - Warning	**1 - <2,5 %**
CAS: 112-34-5	**2-(2-butoxyethoxy)ethanol** Eye Irrit. 2: H319 - Warning	**1 - <2,5 %**

To obtain more information on the hazards of the substances consult sections 11, 12 and 16.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:

This product does not contain substances classified as hazardous for inhalation, however, in case of symptoms of intoxication remove the person affected from the exposure area and provide with fresh air. Seek medical attention if the symptoms get worse or persist.

By skin contact:

In case of contact it is recommended to clean the affected area thoroughly with water and neutral soap. In case of changes to the skin (stinging, redness, rashes, blisters,…), seek medical advice with this Safety Data Sheet

By eye contact:

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, in which case this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:

Request medical assistance immediately, showing the SDS of this product. Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. In the case of loss of consciousness do not administer anything orally unless supervised by a doctor. Rinse out the mouth and throat, as they may have been affected during ingestion. Keep the person affected at rest.

4.2 Most important symptoms and effects, both acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of any immediate medical attention and special treatment needed:

Non-applicable

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media:

Suitable extinguishing media:

Product is non-flammable under normal conditions of storage, handling and use. In the case of combustion as a result of improper handling, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems.

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SECTION 5: FIREFIGHTING MEASURES (continued)

Unsuitable extinguishing media:

Non-applicable

5.2 Special hazards arising from the substance or mixture:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Advice for firefighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and self-contained breathing apparatus (SCBA). Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...).

Additional provisions:

Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. Eliminate all sources of ignition. In case of fire, cool the storage containers and tanks for products susceptible to combustion, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

For non-emergency personnel:

Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

For emergency responders:

Wear protective equipment. Keep unprotected persons away. See section 8.

6.2 Environmental precautions:

This product is not classified as hazardous to the environment. Keep product away from drains, surface and ground water.

6.3 Methods and material for containment and cleaning up:

It is recommended:

Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:

See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:

A.- General precautions for safe use

Comply with the current legislation concerning the prevention of industrial risks with regards manually handling weights. Maintain order, cleanliness and dispose of using safe methods (section 6).

B.- Technical recommendations for the prevention of fires and explosions

Product is non-flammable under normal conditions of storage, handling and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations on general occupational hygiene

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks

It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:

A.- Technical measures for storage

Minimum Temp.:	5 ºC
Maximum Temp.:	30 ºC

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SECTION 7: HANDLING AND STORAGE (continued)

Maximum time: 6 Months

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace:

EH40/2005 Workplace exposure limits, fourth edition, published 2020:

Identification	Occupational exposure limits		
2,2´ -oxybisethanol	WEL (8h)	23 ppm	101 mg/m³
CAS: 111-46-6	WEL (15 min)		
Ethanediol	WEL (8h)	20 ppm	52 mg/m³
CAS: 107-21-1	WEL (15 min)	40 ppm	104 mg/m³
2-(2-methoxyethoxy)ethanol	WEL (8h)	10 ppm	50.1 mg/m³
CAS: 111-77-3	WEL (15 min)		
2-(2-butoxyethoxy)ethanol	WEL (8h)	10 ppm	67.5 mg/m³
CAS: 112-34-5	WEL (15 min)	15 ppm	101.2 mg/m³

DNEL (Workers):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
2-[2-(2-butoxyethoxy)ethoxy]ethanol	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 143-22-6	Dermal	Non-applicable	Non-applicable	208 mg/kg	Non-applicable
EC: 205-592-6	Inhalation	Non-applicable	Non-applicable	195 mg/m³	Non-applicable
2,2´ -oxybisethanol	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 111-46-6	Dermal	Non-applicable	Non-applicable	43 mg/kg	Non-applicable
EC: 203-872-2	Inhalation	Non-applicable	Non-applicable	44 mg/m³	60 mg/m³
Ethanediol	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 107-21-1	Dermal	Non-applicable	Non-applicable	106 mg/kg	Non-applicable
EC: 203-473-3	Inhalation	Non-applicable	Non-applicable	Non-applicable	35 mg/m³
2-(2-methoxyethoxy)ethanol	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 111-77-3	Dermal	Non-applicable	Non-applicable	2.22 mg/kg	Non-applicable
EC: 203-906-6	Inhalation	Non-applicable	Non-applicable	50.1 mg/m³	Non-applicable
1,1´-iminodipropan-2-ol	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 110-97-4	Dermal	Non-applicable	Non-applicable	5 mg/kg	Non-applicable
EC: 203-820-9	Inhalation	Non-applicable	Non-applicable	6.4 mg/m³	Non-applicable
2-(2-butoxyethoxy)ethanol	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 112-34-5	Dermal	Non-applicable	Non-applicable	83 mg/kg	Non-applicable
EC: 203-961-6	Inhalation	Non-applicable	101.2 mg/m³	67.5 mg/m³	67.5 mg/m³

DNEL (General population):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
2-[2-(2-butoxyethoxy)ethoxy]ethanol	Oral	Non-applicable	Non-applicable	12.5 mg/kg	Non-applicable
CAS: 143-22-6	Dermal	Non-applicable	Non-applicable	125 mg/kg	Non-applicable
EC: 205-592-6	Inhalation	Non-applicable	Non-applicable	117 mg/m³	Non-applicable
2,2´ -oxybisethanol	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 111-46-6	Dermal	Non-applicable	Non-applicable	21 mg/kg	Non-applicable
EC: 203-872-2	Inhalation	Non-applicable	Non-applicable	12 mg/m³	12 mg/m³

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Ethanediol	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 107-21-1	Dermal	Non-applicable	Non-applicable	53 mg/kg	Non-applicable
EC: 203-473-3	Inhalation	Non-applicable	Non-applicable	Non-applicable	7 mg/m³
2-(2-methoxyethoxy)ethanol	Oral	Non-applicable	Non-applicable	7.5 mg/kg	Non-applicable
CAS: 111-77-3	Dermal	Non-applicable	Non-applicable	1.33 mg/kg	Non-applicable
EC: 203-906-6	Inhalation	Non-applicable	Non-applicable	30.1 mg/m³	Non-applicable
1,1´-iminodipropan-2-ol	Oral	Non-applicable	Non-applicable	1.3 mg/kg	Non-applicable
CAS: 110-97-4	Dermal	Non-applicable	Non-applicable	6.3 mg/kg	Non-applicable
EC: 203-820-9	Inhalation	Non-applicable	Non-applicable	3.9 mg/m³	Non-applicable
2-(2-butoxyethoxy)ethanol	Oral	Non-applicable	Non-applicable	5 mg/kg	Non-applicable
CAS: 112-34-5	Dermal	Non-applicable	Non-applicable	50 mg/kg	Non-applicable
EC: 203-961-6	Inhalation	Non-applicable	60.7 mg/m³	40.5 mg/m³	40.5 mg/m³

PNEC:

Identification				
2-[2-(2-butoxyethoxy)ethoxy]ethanol	STP	200 mg/L	Fresh water	2 mg/L
CAS: 143-22-6	Soil	0.47 mg/kg	Marine water	0.2 mg/L
EC: 205-592-6	Intermittent	8.4 mg/L	Sediment (Fresh water)	7.7 mg/kg
	Oral	0.111 g/kg	Sediment (Marine water)	0.77 mg/kg
2,2´ -oxybisethanol	STP	199.5 mg/L	Fresh water	10 mg/L
CAS: 111-46-6	Soil	1.53 mg/kg	Marine water	1 mg/L
EC: 203-872-2	Intermittent	10 mg/L	Sediment (Fresh water)	20.9 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	2.09 mg/kg
Ethanediol	STP	199.5 mg/L	Fresh water	10 mg/L
CAS: 107-21-1	Soil	1.53 mg/kg	Marine water	1 mg/L
EC: 203-473-3	Intermittent	10 mg/L	Sediment (Fresh water)	37 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	3.7 mg/kg
2-(2-methoxyethoxy)ethanol	STP	10000 mg/L	Fresh water	12 mg/L
CAS: 111-77-3	Soil	2.1 mg/kg	Marine water	1.2 mg/L
EC: 203-906-6	Intermittent	12 mg/L	Sediment (Fresh water)	44.4 mg/kg
	Oral	0.09 g/kg	Sediment (Marine water)	0.44 mg/kg
1,1´-iminodipropan-2-ol	STP	15000 mg/L	Fresh water	0.278 mg/L
CAS: 110-97-4	Soil	0.303 mg/kg	Marine water	0.028 mg/L
EC: 203-820-9	Intermittent	2.777 mg/L	Sediment (Fresh water)	2.33 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	0.233 mg/kg
2-(2-butoxyethoxy)ethanol	STP	200 mg/L	Fresh water	1.1 mg/L
CAS: 112-34-5	Soil	0.32 mg/kg	Marine water	0.11 mg/L
EC: 203-961-6	Intermittent	11 mg/L	Sediment (Fresh water)	4.4 mg/kg
	Oral	0.056 g/kg	Sediment (Marine water)	0.44 mg/kg

8.2 Exposure controls:

A.- Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protective Equipment, with the corresponding <<UKCA marking>>. For more information on Personal Protective Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation which needs some specification from the labour risk prevention services as it is not known whether the company has additional measures at its disposal.

B.- Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C.- Specific protection for the hands

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Pictogram	PPE	Remarks
 Mandatory hand protection	Protective gloves against minor risks	Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional users/industrials, we recommend using CE III gloves in line with standards EN 420:2004+A1:2010 and EN ISO 374-1:2016+ A1:2018

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application.

D.- Eye and face protection

Pictogram	PPE	Remarks
 Mandatory face protection	Panoramic glasses against splash/projections.	Clean daily and disinfect periodically according to the manufacturer´s instructions. Use if there is a risk of splashing.

E.- Body protection

Pictogram	PPE	Remarks
	Work clothing	Replace before any evidence of deterioration. For periods of prolonged exposure to the product for professional/industrial users CE III is recommended, in accordance with the regulations in EN ISO 6529:2013, EN ISO 6530:2005, EN ISO 13688:2013, EN 464:1994.
	Anti-slip work shoes	Replace before any evidence of deterioration. For periods of prolonged exposure to the product for professional/industrial users CE III is recommended, in accordance with the regulations in EN ISO 20345:2012 y EN 13832-1:2007

F.- Additional emergency measures

Emergency measure	Standards	Emergency measure	Standards
 Emergency shower	ANSI Z358-1 ISO 3864-1:2011, ISO 3864-4:2011	 Eyewash stations	DIN 12 899 ISO 3864-1:2011, ISO 3864-4:2011

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

The Volatile Organic Compounds in Paints, Varnishes and Vehicle Refinishing Products Regulations 2012:

V.O.C. (Supply): 44.44 % weight

V.O.C. density at 20 ºC: 467.51 kg/m³ (467.51 g/L)

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

For complete information see the product datasheet.

Appearance:

Physical state at 20 ºC:	Liquid
Appearance:	Fluid
Colour:	Amber
Odour:	Soft
Odour threshold:	Non-applicable *

Volatility:

Boiling point at atmospheric pressure:	300 ºC

*Not relevant due to the nature of the product, not providing information property of its hazards.

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Vapour pressure at 20 ºC:	3 Pa
Vapour pressure at 50 ºC:	35.73 Pa (0.04 kPa)
Evaporation rate at 20 ºC:	Non-applicable *
Product description:	
Density at 20 ºC:	1052 kg/m³
Relative density at 20 ºC:	1.05
Dynamic viscosity at 20 ºC:	2.66 cP
Kinematic viscosity at 20 ºC:	2.61 mm²/s
Kinematic viscosity at 40 ºC:	Non-applicable *
Concentration:	Non-applicable *
pH:	7 - 9 (at 100 %)
Vapour density at 20 ºC:	Non-applicable *
Partition coefficient n-octanol/water 20 ºC:	Non-applicable *
Solubility in water at 20 ºC:	Non-applicable *
Solubility properties:	Highly water-soluble
Decomposition temperature:	Non-applicable *
Melting point/freezing point:	Non-applicable *
Flammability:	
Flash Point:	142 ºC
Flammability (solid, gas):	Non-applicable *
Autoignition temperature:	310 ºC
Lower flammability limit:	Non-applicable *
Upper flammability limit:	Non-applicable *
Particle characteristics:	
Median equivalent diameter:	Non-applicable

9.2 Other information:

Information with regard to physical hazard classes:

Explosive properties:	Non-applicable *
Oxidising properties:	Non-applicable *
Corrosive to metals:	Non-applicable *
Heat of combustion:	Non-applicable *
Aerosols-total percentage (by mass) of flammable components:	Non-applicable *
Other safety characteristics:	
Surface tension at 20 ºC:	Non-applicable *
Refraction index:	Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:

Chemically stable under the indicated conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

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SECTION 10: STABILITY AND REACTIVITY (continued)

10.4 Conditions to avoid:

Applicable for handling and storage at room temperature:

Shock and friction	Contact with air	Increase in temperature	Sunlight	Humidity
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

10.5 Incompatible materials:

Acids	Water	Oxidising materials	Combustible materials	Others
Avoid strong acids	Not applicable	Not applicable	Not applicable	Avoid alkalis or strong bases

10.6 Hazardous decomposition products:

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO_2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:

The experimental information related to the toxicological properties of the product itself is not available

Contains glycols. It is recommended not to breathe the vapours for prolonged periods of time due to the possibility of effects that are hazardous to the health .

Dangerous health implications:

In case of exposure that is repetitive, prolonged or at concentrations higher than the recommended occupational exposure limits, adverse effects on health may result, depending on the means of exposure:

A- Ingestion (acute effect):

- Acute toxicity: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

B- Inhalation (acute effect):

Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for inhalation. For more information see section 3.

- Acute toxicity : Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.
- Corrosivity/Irritability:

C- Contact with the skin and the eyes (acute effect):

- Contact with the skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for skin contact. For more information see section 3.
- Contact with the eyes: Produces eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for the effects mentioned. For more information see section 3.
  IARC: Non-applicable
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met. However, it does contain substances classified as hazardous for this effect. For more information see section 3.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous with sensitising effects. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

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SECTION 11: TOXICOLOGICAL INFORMATION (continued)

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicology information on the substances:

Identification	Acute toxicity		Genus
2-[2-(2-butoxyethoxy)ethoxy]ethanol	LD50 oral	5170 mg/kg	Rat
CAS: 143-22-6	LD50 dermal	3480 mg/kg	Rabbit
	LC50 inhalation	Non-applicable	
2,2´-oxybisethanol	LD50 oral	500 mg/kg	Rat
CAS: 111-46-6	LD50 dermal	11890 mg/kg	Rabbit
	LC50 inhalation	Non-applicable	
Ethanediol	LD50 oral	7712 mg/kg	Rat
CAS: 107-21-1	LD50 dermal	>3500 mg/kg	Rabbit
	LC50 inhalation	>2.5 mg/L (6 h)	Rat
2-(2-methoxyethoxy)ethanol	LD50 oral	7128 mg/kg	Rat
CAS: 111-77-3	LD50 dermal	9404 mg/kg	Rabbit
	LC50 inhalation	Non-applicable	
1,1´-iminodipropan-2-ol	LD50 oral	4765 mg/kg	Rat
CAS: 110-97-4	LD50 dermal	Non-applicable	
	LC50 inhalation	Non-applicable	

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Toxicity:

Acute toxicity:

Identification	Concentration		Species	Genus
2-[2-(2-butoxyethoxy)ethoxy]ethanol	LC50	2400 mg/L (96 h)	Pimephales promelas	Fish
CAS: 143-22-6	EC50	3200 mg/L (24 h)	Daphnia magna	Crustacean
	EC50	Non-applicable		
2,2´-oxybisethanol	LC50	32000 mg/L (96 h)	Gambussia afinis	Fish
CAS: 111-46-6	EC50	84000 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	Non-applicable		
Ethanediol	LC50	53000 mg/L (96 h)	Pimephales promelas	Fish
CAS: 107-21-1	EC50	51000 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	24000 mg/L (168 h)	Selenastrum capricornutum	Algae
2-(2-methoxyethoxy)ethanol	LC50	5741 mg/L (96 h)	Pimephales promelas	Fish
CAS: 111-77-3	EC50	1192 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	Non-applicable		
2-(2-butoxyethoxy)ethanol	LC50	1300 mg/L (96 h)	Lepomis macrochirus	Fish
CAS: 112-34-5	EC50	2850 mg/L (24 h)	Daphnia magna	Crustacean
	EC50	53 mg/L (192 h)	Microcystis aeruginosa	Algae

Chronic toxicity:

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SECTION 12: ECOLOGICAL INFORMATION (continued)

Identification	Concentration		Species	Genus
2-[2-(2-butoxyethoxy)ethoxy]ethanol	NOEC	Non-applicable		
CAS: 143-22-6	NOEC	100 mg/L	Daphnia magna	Crustacean
2,2´-oxybisethanol	NOEC	Non-applicable		
CAS: 111-46-6	NOEC	8590 mg/L	Ceriodaphnia dubia	Crustacean

12.2 Persistence and degradability:

Substance-specific information:

Identification	Degradability		Biodegradability	
2-[2-(2-butoxyethoxy)ethoxy]ethanol	BOD5	0.3 g O2/g	Concentration	10 mg/L
CAS: 143-22-6	COD	1.83 g O2/g	Period	14 days
	BOD5/COD	0.16	% Biodegradable	88 %
2,2´-oxybisethanol	BOD5	0.05 g O2/g	Concentration	100 mg/L
CAS: 111-46-6	COD	1.51 g O2/g	Period	28 days
	BOD5/COD	0.03	% Biodegradable	90 %
Ethanediol	BOD5	0.47 g O2/g	Concentration	100 mg/L
CAS: 107-21-1	COD	1.29 g O2/g	Period	14 days
	BOD5/COD	0.36	% Biodegradable	90 %
2-(2-methoxyethoxy)ethanol	BOD5	Non-applicable	Concentration	Non-applicable
CAS: 111-77-3	COD	Non-applicable	Period	28 days
	BOD5/COD	Non-applicable	% Biodegradable	100 %
2-(2-butoxyethoxy)ethanol	BOD5	0.25 g O2/g	Concentration	100 mg/L
CAS: 112-34-5	COD	2.08 g O2/g	Period	28 days
	BOD5/COD	0.12	% Biodegradable	92 %

12.3 Bioaccumulative potential:

Substance-specific information:

Identification	Bioaccumulation potential	
2-[2-(2-butoxyethoxy)ethoxy]ethanol	BCF	3
CAS: 143-22-6	Pow Log	0.62
	Potential	Low
2,2´-oxybisethanol	BCF	0
CAS: 111-46-6	Pow Log	-1.47
	Potential	Low
Ethanediol	BCF	10
CAS: 107-21-1	Pow Log	-1.36
	Potential	Low
2-(2-methoxyethoxy)ethanol	BCF	3
CAS: 111-77-3	Pow Log	-1.18
	Potential	Low
2-(2-butoxyethoxy)ethanol	BCF	0.46
CAS: 112-34-5	Pow Log	0.56
	Potential	Low

12.4 Mobility in soil:

Identification	Absorption/desorption		Volatility	
2,2´-oxybisethanol	Koc	1	Henry	2.06E-4 Pa·m³/mol
CAS: 111-46-6	Conclusion	Very High	Dry soil	No
	Surface tension	4.954E-2 N/m (25 ºC)	Moist soil	No
Ethanediol	Koc	0	Henry	1.327E-1 Pa·m³/mol
CAS: 107-21-1	Conclusion	Very High	Dry soil	No
	Surface tension	4.989E-2 N/m (25 ºC)	Moist soil	No
2-(2-methoxyethoxy)ethanol	Koc	1	Henry	1.621E-6 Pa·m³/mol
CAS: 111-77-3	Conclusion	Very High	Dry soil	Non-applicable
	Surface tension	3.59E-2 N/m (25 ºC)	Moist soil	No

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SECTION 12: ECOLOGICAL INFORMATION (continued)

Identification	Absorption/desorption		Volatility	
1,1´-iminodipropan-2-ol	Koc	Non-applicable	Henry	Non-applicable
CAS: 110-97-4	Conclusion	Non-applicable	Dry soil	Non-applicable
	Surface tension	1.619E-2 N/m (221.93 ºC)	Moist soil	Non-applicable
2-(2-butoxyethoxy)ethanol	Koc	48	Henry	7.2E-9 Pa·m³/mol
CAS: 112-34-5	Conclusion	Very High	Dry soil	No
	Surface tension	3.395E-2 N/m (25 ºC)	Moist soil	No

12.5 Results of PBT and vPvB assessment:

Product does not meet PBT/vPvB criteria

12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods:

Code	Description	Waste class
	It is not possible to assign a specific code, as it depends on the intended use by the user	Dangerous

Type of waste:

HP6 Acute Toxicity, HP10 Toxic for reproduction, HP4 Irritant — skin irritation and eye damage

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations in accordance The Waste Regulations 2011, 2011 No. 988. As under 15 01 of the code and in case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. Waste should not be disposed of to drains. See paragraph 6.2.

Regulations related to waste management:

In accordance with Annex II of UK REACH the provisions related to waste management are stated:

UK legislation: The Waste Regulations 2011.

SECTION 14: TRANSPORT INFORMATION

This product is not regulated for transport (ADR/RID,IMDG,IATA)

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:

- Substances listed in UK candidate list of substances of very high concern (SVHCs): Non-applicable
- Substances listed in UK REACH Authorisation List (Annex 14): Non-applicable

The Control of Major Accident Hazards Regulations 2015:

Non-applicable

Restrictions to commercialisation and the use of certain dangerous substances and mixtures (Annex XVII UK REACH, etc ....):

Contains more than 0.1 % of 2-(2-methoxyethoxy)ethanol by weight. Shall not be placed on the market after 27 June 2010, for supply to the general public, as a constituent of paints, paint strippers, cleaning agents, selfshining emulsions or floor sealants in concentrations equal to or greater than 0,1 % by weight.
Shall not be used in:
—ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays,
—tricks and jokes,
—games for one or more participants, or any article intended to be used as such, even with ornamental aspects.

Specific provisions in terms of protecting people or the environment:

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SECTION 15: REGULATORY INFORMATION (continued)

It is recommended to use the information included in this safety data sheet as a basis for conducting workplace-specific risk assessments in order to establish the necessary risk prevention measures for the handling, use, storage and disposal of this product.

Other legislation:

The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020.
The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use) (Amendment etc.) (EU Exit) Regulations 2020.
Control of Substances Hazardous to Health Regulations 2002 (as amended)
EH40/2005 Workplace exposure limits.

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:

This safety data sheet has been designed in accordance with ANNEX II-The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020.

Texts of the legislative phrases mentioned in section 2:

H319: Causes serious eye irritation.
H302: Harmful if swallowed.

Texts of the legislative phrases mentioned in section 3:

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

GB CLP Regulation:

Acute Tox. 4: H302 - Harmful if swallowed.
Eye Dam. 1: H318 - Causes serious eye damage.
Eye Irrit. 2: H319 - Causes serious eye irritation.
Repr. 1B: H360D - May damage the unborn child.

Classification procedure:

Eye Irrit. 2: Calculation method
Acute Tox. 4: Calculation method

Advice related to training:

Training is recommended in order to prevent industrial risks for staff using this product and to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:

http://echa.europa.eu
http://eur-lex.europa.eu

Abbreviations and acronyms:

ADR: European agreement concerning the international carriage of dangerous goods by road
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
LC50: Lethal Concentration 50
EC50: Effective concentration 50
LogPOW: Octanolwater partition coefficient
Koc: Partition coefficient of organic carbon
UFI: unique formula identifier
IARC: International Agency for Research on Cancer

- END OF SAFETY DATA SHEET -